

Few are averse to sharing personal data

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The results will appear in the INFORMS/ACM/IEEE Winter Simulation Conference 2021 to be held in Arizona, US, which is a premier global research forum for industrial statistics modelling and applications.

A group of researchers from academia and corporate sector around the globe (led by us) recently answered the question—will the potential pitfalls of the human-centric data economy (for example, privacy risks) be potent enough for people in India to opt-out of doing personal data commerce in HCDEs?—in the negative by running large-scale pilot randomised controlled trials conducted between 2014 and 2019 on sections of the Indian population. Through detailed statistical analyses, the researchers found that privacy awareness programmes did not have a statistically significant impact to sway the general population towards rejecting the concept of transparent HCDEs.

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modelling and applications. Our notion of ‘transparency’ implies individuals, prior to personal data sale, should be informed/educated of the data being collected by online firms along with privacy risks accompanying such activities. This action is necessary in the Indian context where smartphone penetration among the population (urban and rural) is very high—on the contrary, digital literacy (forget privacy literacy) is virtually non-existent for over 90% of the population. The research outcome is well-rationalised for a country like India, despite privacy being a right upheld by the Indian Constitution—primarily because of multiple reasons working together in tandem:

1. Awareness on good privacy-hygiene is lacking for a major Indian population;
2. A significant section of the population preferring to monetise their personal data in return for incentives that might increase their daily average income;
3. A part of the same population being under the perception (due to data commercialisation inevitability and its economic unfairness) of accruing high opportunity costs of not being part of an HCDE;
4. A consensus of resentment in certain sections of the privacy-sensitive public on the unfairness of existing data commercialisation providing a basis for a behavioural anchoring bias that makes them prefer embracing HCDEs when compared to staying true to their ‘private’ nature and shying away from them;
5. A sense of confirmation bias prevailing among parts of the privacy-literate population that an evidence of privacy-enhancing technologies (PETs) being increasingly used by personal data collectors does not rule out the inevitable existence of unfair information asymmetry driven personal data commercialisation;
6. The strong, close-knit sociocultural fabric of India that enables voluntary personal data release by individuals on mobile social community platforms to garner social importance points (for example, through Facebook likes); and

7. In developing economies with high inequity, a considerable fraction of the population (especially poor people) give high priority to psychological happiness coming from short-term gains (Poor Economics by Banerjee and Duflo) such as being able to view TV, and gaining ‘instant cash’ on their personal data through smartphone surfing that is pervasive, compared to rationalising on longer-term privacy risks, even when aware of these.

Statistics reveal that individual preferences to trade personal data seem to hint towards a weak power law (a law prevalent in the social sciences that explains how social phenomena spread out in communities) irrespective of monetary compensation. The evidence of weak power-law relationships concerning human personal data trading preferences with and without incentives suggests the former are correlated via a homophily-driven social phenomenon (induced by behavioural economic rationale) catalysed by a highly inequitable (and generally privacy-illiterate) low-medium developing economy. In tune with the mathematical shape of a power-law distribution of trading preferences, we found most of the surveyed population in this economy socially and favourably share the feeling to increment their average daily income by even a dollar by trading personal information.

Also, privacy-literate but non-sensitive individuals do not want to miss out on opportunities to trade their personal data when they share a common belief that data commercialisation is inevitable—more so in the wake of recent data scandals such as the UIDAI database breach in India, and Cambridge Analytica worldwide. Only a relatively much smaller portion (the tail of the power-law distribution) of the surveyed population (highly privacy-sensitive and income-oblivious individuals) is averse to personal data trading.

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